

Commands Performance Analysis

Command	ls	find
Time Measurement	0.007s by real 0.002s by user 0.005s by sys	41.9s by user 1.46s by user 11.8s by sys
System Interaction Identification (stacks accessed)	Memory map, file system stack, kernel, arch, drivers	Memory map, file system stack, kernel, arch, drivers
SysCall Time Breakdown (time per syscall)	59usec/call Total 78 calls, 0.005s	7usec/call Total 89 calls, 0.00067s
Performance Evaluation	find command performs better	

Command	cp	rsync
Time Measurement	0.006s by real 0.002s by user 0.004s by sys	0.013s by real 0.006s by user 0.007s by sys
System Interaction Identification	Memory map, file system stack, kernel, arch, drivers	Memory map, file system stack, kernel, arch, drivers
SysCall Time Breakdown (time per syscall)	38usec/call Total 111 calls, 0.0043s	26usec/call Total 334 calls, 0.0088s
Performance Evaluation	cp command performs better	

Command	diff	cmp
Time Measurement	0.005s by real 0.002s by user 0.003s by sys	0.006s by real 0.002s by user 0.004s by sys
System Interaction Identification	Memory map, file system stack, kernel, arch, drivers	Memory map, file system stack, kernel, arch, drivers
SysCall Time Breakdown (time per syscall)	84usec/call Total 72 calls, 0.006s	47usec/call Total 82 calls, 0.004s
Performance Evaluation	cmp command performs better	

Command	sort	uniq
Time Measurement	0.005s by real 0.002s by user 0.003s by sys	0.005s by real 0.002s by user 0.003s by sys
System Interaction Identification	Memory map, file system stack, kernel, arch, drivers	Memory map, file system stack, kernel, arch, drivers
SysCall Time Breakdown (time per syscall)	24usec/call Total 105 calls, 0.0026s	63usec/call Total 72 calls, 0.0046s
Performance Evaluation	sort command performs better	

Command	grep	sed
Time Measurement	0.006s by real 0.003s by user 0.003s by sys	0.006s by real 0.003s by user 0.003s by sys
System Interaction Identification	Memory map, file system stack, kernel, arch, drivers	Memory map, file system stack, kernel, arch, drivers
SysCall Time Breakdown (time per syscall)	55usec/call Total 81 calls, 0.0045s	23usec/call Total 129 calls, 0.0031s
Performance Evaluation	sed command performs better	

System Call	The Stack it Accesses
mmap	Memory
mprotect	memory
write	File system
fstat	File system
Close	File system
openat	File system
Read	File system
Statfs	File system
loctl	File system
Getdents64	File system
Pread64	File system
munmap	memory
Brk	Memory
access	File system
Rseq	kernel
Set_robust_list	kernel
Prlimit64	kernel
Arch_prctl	arch
Set_tid_address	kernel
Getrandom	drivers
execve	File system
lseek	File system
Geteuid	kernel
futex	Kernel
Rt_sigaction	Arch, kernel
newfstatat	File system
umask	kernel
Getegid	kernel
getcwd	File system
Rt_sigprocmask	kernel